In the Abstract:

Please replace the Abstract currently of record with the following new

Abstract:

--In a training operation for optimizing a multiplication coefficient for each tap of

an FIR equalizer equalizing a read signal read from a recording medium, as a restricted

coefficient updating vector applied for updating the multiplication coefficient for each tap of an

FIR filter, a vector is utilized which is obtained by projecting, onto a plane perpendicular to a

predetermined restricting conditioning vector, a coefficient updating vector determined based on

an equalizer error between the output of the FIR equalizer and a reproduction output determined

therefrom and a delayed input value for each tap of the FIR equalizer. As the restricting

conditioning vector, a vector is utilized which is a difference between a subsequent coefficient

vector obtained in the same condition immediately subsequent to and an antecedent coefficient

vector obtained in the same condition immediately antecedent to a reference coefficient

comprising the multiplication coefficient for the equalizer obtained upon calculating the

equalizer error.--